

Micro Commercial Components



Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311 Phone: (818) 701-4933 Fax: (818) 701-4939

Features

- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Saving space
- High Reliability
- Low reverse current and low forward voltage
- Micro Melf package,fits onto SOD 323/SOT 23 Footprints
 Lead Free Finish/Rohs Compliant (Note1) ("P"Suffix designates
- Lead Free Finish/Rons Compliant (Note1) ("P"Suffix designat Compliant. See ordering information)

Maximum Ratings

| Parameter | Symbol | Value | Test Conditions |
|--|------------------|-------------------|-----------------|
| Repetitive peak reverse voltage MCL103A MCL103B MCL103C | V _{RRM} | 40V 30V 20V | |
| Repetitive peak forward current | I _{FRM} | 1A | |
| Forward current | I _{FM} | 350 mA | |
| Power dissipation | PD | 400 mW | |
| Storage temperature range | T _{stg} | -65~+175℃ | |
| Junction to ambient | R_{thJA} | 250K/W | |

Electrical Characteristics @ 25°C Unless Otherwise Specified

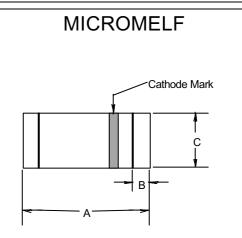
| Parameter | Symbol | Value | Test Conditions |
|--|-----------------|----------------|---|
| Forward voltage | V_{F} | 0.37∨ 0.6 V | l _F =20mA l _F =200mA |
| Reverse current MCL103A MCL103B MCL103C | I _R | 5 µ A | V _R =30V V _R =20V V _R =10V |
| Diode capacitance | C_{D} | 50pF | V _R =V _F =0, f=1MHz |
| Reverse recovery time | t _{rr} | 10ns | I _F = I _R =200mA to 0.1mA |

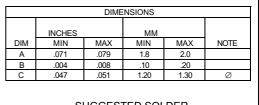
| Note: 1. Lead in Glass Exemption Applied | d, see EU Directive Annex 7(C)-I. |
|--|-----------------------------------|
|--|-----------------------------------|

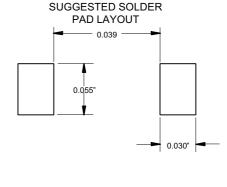
350 mA Schottky

MCL103A/B/C

Barrier Rectifier 20 to 40 Volts



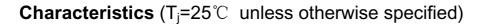


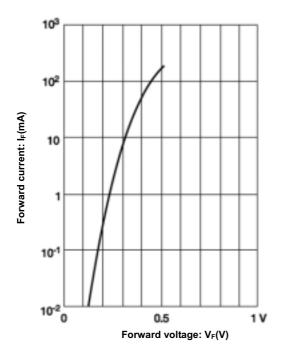


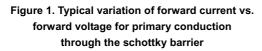
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MCL103A/B/C







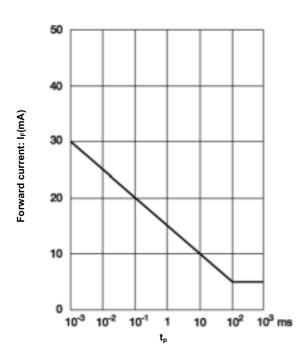


Figure 3. Typical non repetitive forward surge current vs. pulse width

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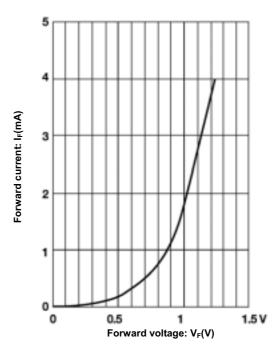
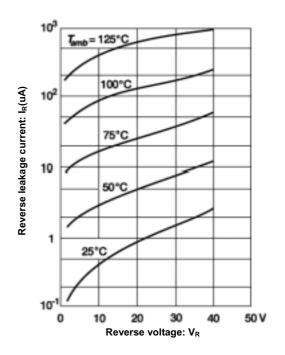
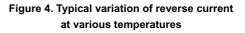


Figure 2. Typical high current forward conduction curve t_p=300ms, duty cycle=2%





Revision: B

2012/01/01



MCL103A/B/C

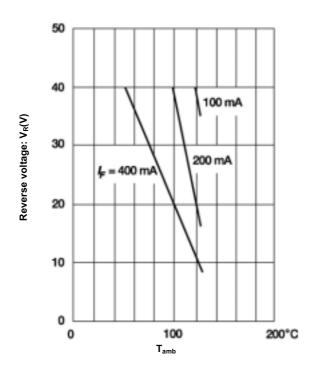


Figure 5. Blocking voltage duration vs. temperature at various average forward current

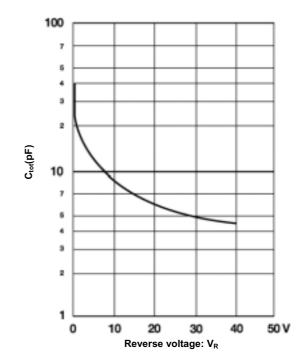


Figure 6. Typical capacitance vs. reverse voltage

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Ordering Information :

| Device | Packing |
|----------------|-------------------------|
| Part Number-TP | Tape&Reel: 2.5Kpcs/Reel |

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